REMARKS

This paper is responsive to the non-Final Office Action of July 29, 2008. Reexamination and reconsideration of claims 2-15 are requested.

The Office Action

Claims 1-5, 11, and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Heitmeier (US 6,544,228) in view of Jensen (EP 0,664,399).

Claims 6 and 13 stand rejected under 35 U.S.C. § 103 as being unpatentable over Heitmeier in view of Jensen, further in view of Allison (US 5,772,413).

Claims 7 and 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Heitmeier in view of Jensen, further in view of Williams (US 5,491,831).

Claims 8-10 stand withdrawn as being non-elected claims.

Claim 14 stands rejected under 35 U.S.C. § 103 as being unpatentable over Heitmeier, in view of Jensen, further in view of Allison, further yet in view of Ching (US 6,533,168).

Section Headings

Preliminary Amendment A set forth amendments to the specification which included the addition of subheadings. It is again requested that the amendments to the specification set forth in Preliminary Amendment A be entered. With the entry of these amendments, it is submitted that the Examiner's objection to the specification for a lack of section headings has been resolved.

Discussion

Claim 2 has been placed in independent form, and amended to include subject matter which is supported by page 7, paragraph 4, lines 3-5 and page 8, paragraph 1, lines 1-3.

The present application provides continuous supervision of the wireless connection between the operating unit **12** and the pump unit **14**. According to page 2, paragraph 3, and page 7, paragraph 4 of the description, continuous supervision

includes "in a tight time-slot pattern of a few seconds at maximum". The supervision is performed by regularly inducing the transceiver module of the pump **14** to emit a presence signal at intervals of a maximum of a few seconds.

The continuous emission of presence signals induced by the supervisory module **42** enables a wireless connection check to be performed continuously, i.e., in a cyclic time-slot pattern, independently of control or operation data (or lack thereof) being exchanged between the pump unit **14** and the operating unit **12**.

By contrast, in the infusion device according to **Heitmeier**, the infusion pumps **12** expect "a valid sequence of communication with the controller **10** within a given fault tolerance" (column 4, lines 8-10).

As explained in the paragraph which bridges columns 3 and 4 of Heitmeier, the expected sequence of communication is a combination of control commands and other data together with a fault detection code. If the fault detection code is correct, the data sequence of the communication is considered valid and the control commands are accepted. If the fault detection code is false, the control commands are denied.

In this manner, Heitmeier checks whether the control commands have been corrupted during transmission. Heitmeier does not disclose a supervisory module which generates a presence signal independent of any control or operation of data. According to Heitmeier, each infusion apparatus expects a valid sequence of communication with the controller **10** within a given fault tolerance time. That is, Heitmeier checks whether the controller and the infusion pump are in communication by determining how often a valid communication including control data combined with a fault detection code. Thus, Heitmeier cannot check whether the controller and the infusion pump are in communication without exchanging control or operational data. There is no independent presence or connectivity signal.

Moreover, the infusion pumps according to Heitmeier expect the communication data only "within a given fault tolerance time" (column 4, lines 9-10). This is not a continuous check within a cycle time slot.

In summary, Heitmeier discloses a validity check for determining the validity of a control command. This check is also used in order to detect a possible interruption of the data communication path. In Heitmeier, this determination is

performed irregularly when it is necessary in order to transmit data and is not performed continuously in a cyclic time pattern.

In the present application, a separate presence signal, which is independent from any control and operating data, is employed. This makes it possible to test the communication link even when no control or operational data at all are exchanged.

Jensen does not disclose a vacuum pump for performing continuous supervision of the communication link between a pump unit and an operating unit. In particular, no communication link supervision is performed when no control or operational data is being exchanged.

Claim 2 calls for a pump control and supervisory module for continuous supervision of the transceiver module even if no control or operational data at all are exchanged between the pump and the operating unit. As described above, Heitmeier must exchange control or operational data in order to test the communication link.

Further, claim 2 calls for the supervisory module to regularly induce the transceiver module at intervals of a few seconds at maximum to emit a presence signal. Again, Heitmeier tests the communication link only when control or operational data are exchanged and tests the communication link based on such control or operational data communication rather than based on a presence signal transmitted at intervals.

Jensen does not cure these shortcomings of Heitmeier. Jensen does not disclose testing a communication link when no control or operational data are exchanged.

Accordingly, it is submitted that **claim 2 and claims 3-7 dependent therefrom** now distinguish patentably and unobviously over the references of record.

Claim 11 calls for the control unit to have a transceiver module which sends two kinds of signals: wireless control signals and signals to induce each of the vacuum pump units to emit a presence signal. By contrast, Heitmeier does not send signals different from control signals to induce a pumping unit to emit a presence signal.

Further, claim 11 calls for the transceiver to receive two types of signals: information signals and presence signals different from the information signals. By

contrast, Heitmeier only receives a single type of signal. Jensen does not address this distinction.

Accordingly, it is submitted that **claim 11 and claims 12-15 dependent therefrom** now distinguish patentably and unobviously over the references of record.
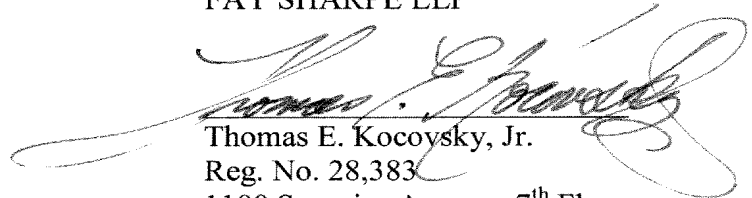
Non-Elected Claims

Upon allowance of claims 2-7 and 11-15, the Examiner is authorized to cancel non-elected elected claims 8-10 by Examiner's Amendment, without prejudice. The applicant reserves the right to file a timely divisional application directed to the non-elected claims.

CONCLUSION

For the reasons set forth above, it is submitted that claims 2-7 and 11-15 now distinguish patentably and unobviously over the references of record. An early allowance of all claims is requested.

Respectfully submitted,

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